

CLAIMS

What is claimed is:

1. An emergency water release device comprising, in combination:
 - a plurality of heating elements adapted to heat water;
 - a shower adapted to dispense water;
 - an eyewash adapted to dispense water;
 - a valve; and
 - a controller which sends a first signal to turn off at least one of the plurality of heating elements when a temperature of the water exceeds a predetermined limit; and
- wherein when a flow rate of the water is reduced to a reduced flow rate, the valve opens so that water is dispersed away from both the shower and the eyewash in an amount equal to the difference between the flow rate and the reduced flow rate.
2. The emergency water release device of claim 1 wherein the flow rate is the rate of water dispensed through both the shower and the eyewash, and the reduced flow rate is one of the rate of water dispensed through the eyewash and no flow at all.

3. The emergency water release device of claim 1 wherein the valve is a solenoid valve, and the controller controls the solenoid valve.

4. The emergency water release device of claim 1 wherein water is dispersed through the valve for a predetermined period of time set by the controller in response to the flow rate of the water.

5. The emergency water release device of claim 1 further comprising a temperature input signal received by the controller corresponding to the temperature of the water after passing through the plurality of heating elements.

6. The emergency water release device of claim 1 further comprising:
a shower activation signal;
an eyewash activation signal;
wherein upon receipt by the controller of one of the shower activation signal and the eyewash activation signal, or both, the controller sends a signal to turn on the heating elements to heat the water.

7. The emergency water release device of claim 6 wherein the controller holds the temperature of the water within a predetermined range.

8. An emergency water release device comprising, in combination:

1 a shower adapted to dispense water;
2 an eyewash adapted to dispense water;
3 a plurality of heating elements adapted to heat water comprising
4 a first set of heating elements electrically connected in series which
5 provides heat for water to be dispensed by the shower,
6 a second set of heating elements electrically connected in series
7 which provides heat for water to be dispensed by the eyewash, and
8 the first set and the second set are electrically connected in parallel;
9 and
10 a controller which sends a first signal to turn off at least one of the plurality
11 of heating elements when a temperature of the water exceeds a predetermined
12 limit.

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14 9. The emergency eyewash release device of claim 8 further comprising
15 a valve, and when a flow rate of the water is reduced to a reduced flow
16 rate, the valve opens so that water is dispersed away from both the shower and
17 the eyewash in an amount equal to the difference between the flow rate and the
18 reduced flow rate.

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20 10. The emergency water release device of claim 8 further comprising a heat
21 exchanger, wherein all the first set of heating elements and all of the second set
22 of heating elements apply heat to the heat exchanger.

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- 2 11. An emergency water release device comprising, in combination:
- 3 a plurality of heating elements adapted to heat water;
- 4 a shower adapted to dispense water;
- 5 an eyewash adapted to dispense water;
- 6 a first valve; and
- 7 a controller which, in response to a temperature of the water exceeding a
- 8 first predetermined limit, sends a first signal to the first valve to open so that
- 9 unheated water is mixed with the heated water; and
- 10 in response to the temperature of the water exceeding a second
- 11 predetermined limit greater than the first predetermined limit, the controller sends
- 12 a signal to turn off at least one of the plurality of heating elements.
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- 14 12. The emergency water release device of claim 11 further comprising
- 15 a second valve;
- 16 wherein when a flow rate of the water is reduced to a reduced flow rate,
- 17 the second valve opens so that water is dispersed away from both the shower
- 18 and the eyewash in an amount equal to the difference between the flow rate and
- 19 the reduced flow rate.
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1 13. The emergency water release device of claim 11 further comprising a third
2 valve and the controller sends a signal through one of the second valve and the
3 third valve during a diagnostic cycle.

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5 14. The emergency water release device of claim 13 wherein a flow rate
6 through the third valve is generally equivalent to a flow rate through the eyewash.

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8 15. The emergency water release device of claim 11 wherein the first
9 predetermined limit is 90°F and second predetermined limit is 95°F.